

FILE 'HCAPLUS, INSPEC, WPIX' ENTERED AT 10:11:43 ON 12 MAR 2004

L1 745096 S TRANSPAREN? OR TRANSLUSC? OR SEE(W)  
THROUGH OR CLEAR OR PELLUCID? OR LUCID?  
L2 8197418 S FILM# OR COAT##### OR STRATA# OR STRATUM#  
OR LAMINA##### OR THINFILM? OR LAY OR LAIN? OR LAID? OR  
OVERLAY? OR OVERLAID? OR OVERLAIN? OR LAMIN? OR LAMEL? OR  
MULTILAYER#### OR MATERIAL#  
L3 142278 S L1(3A) L2  
L4 414722 S HEMI? OR FRENEL? OR FRESNEL? OR ELLIPSOID? OR LENS##  
L5 1500 S L3(5A) L4  
L6 966371 S LED# OR L(W)E(W)D OR LIGHT(W) (EMITT? OR  
EMISSI?) OR ?LUMINES? OR EL OR ELD OR ELD OR ELECTROLUMIN? OR  
ELECTROPHOSPHOR? OR PHOSPHORES? OR SUPERLUMIN? OR OPTOELECT?  
OR OPTO(W)ELECT? OR ELECTROOPTIC? OR PHOTODIODE? OR (PHOTO OR  
OPTIC OR OPTO) (W)DIODE#  
L7 97 S L5 AND L6

FILE 'HOME' ENTERED AT 10:23:14 ON 12 MAR 2004

FILE 'HCAPLUS, WPIX' ENTERED AT 10:24:19 ON 12 MAR 2004

L8 97 DUP REM L7 (0 DUPLICATES REMOVED)  
FILE 'HOME' ENTERED AT 10:40:29 ON 12 MAR 2004

L8 ANSWER 27 OF 97 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:769276 HCAPLUS Full-text  
TI **Led** light source with lens

IN Sorg, Jorg-erich

PA Osram Opto Semiconductors Gmbh & Co. Ohg, Germany

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000065664	A1	20001102	WO 2000-DE1079	20000407
	US 2002057057	A1	20020516	US 2001-7398	20011022
	US 2003211804	A1	20031113	US 2003-454919	20030605
PRAI	WO 2000-DE1079	W	20000407		
	US 2001-7398	A3	20011022		

AB The invention relates to a light source in which a **light emitting** diode (2) preferably designed for surface mounting is embedded in a transparent filler material (3) which contains a converter substance for converting at least part of the wavelength of the **light emitted** by the **light emitting** diode. A **lens** (4) is affixed to the **transparent** filler **material**. Said filler material has a convex upper surface (3A) and the lens has a concave lower surface (4A) which contacts the convex upper surface of the filler material with a form fit.

IC ICM H01L033-00

L8 ANSWER 96 OF 97 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1970:440036 HCAPLUS  
TI Solid state lamp having a lens with rhodamine or fluorescent material  
dispersed therein  
IN Amans, Robert L.  
PA General Electric Co.  
PATENT NO. KIND DATE APPLICATION NO. DATE  
PI US 3510732 A 19700505 US 1968-723157 19680422  
PRAI US 1968-723157 19680422  
AB A SiC solid-state lamp with the highest possible brightness, having its peak  
spectral emission in the red region, is achieved by providing, over the **light-**  
**emitting** face of the semiconductor crystal, a cap or **lens** of a **transparent**  
**material**, such as acrylic resin. A fluorescent material which absorbs in the SiC  
spectral emission and re-emits at a longer wavelength is dispersed in the lens.  
Preferably, this dye is rhodamine B.  
IC H01L  
NCL 317234000  
CC 71 (Electric Phenomena)

(claim 62)

L8 ANSWER 8 OF 97 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
AN 2003-860590 [80] WPIX Full-text  
TI Optical system cleaner used in image pickup apparatus, has transparent photocatalyst thin film which is formed on surfaces of objective lens through which light is passed to **photoluminescence** element.  
PA (WADA-I) WADA H  
PI JP 2003323734 A 20031114<sup>X</sup>(200380)\* FYI 3p  
PRAI JP 2002-163608 20020426  
TI Optical system cleaner used in image pickup apparatus, has transparent photocatalyst thin film which is formed on surfaces of objective lens through which light is passed to **photoluminescence** element.  
AB JP2003323734 A UPAB: 20031211  
NOVELTY - A transparent photocatalyst thin film (9) is formed on both surfaces of an objective lens (3) through which light is passed, to a **photoluminescence** element (10).  
USE - In image pickup apparatus.  
ADVANTAGE - Enables removing the stain on the surface of objective lens, easily.  
DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of the pickup apparatus.  
optical information recording medium 1 housing 2  
objective lens 3  
beam splitter 4  
collimator lens 5  
laser radiation **light emitting** diode 6 condenser 7  
detector 8  
photocatalyst thin film 9  
**photoluminescence** element 10 Dwg.2/2  
TT TT: OPTICAL SYSTEM CLEAN IMAGE APPARATUS **TRANSPARENT**  
PHOTOCATALYST THIN **FILM** FORMING SURFACE OBJECTIVE  
**LENS** THROUGH LIGHT PASS **PHOTOLUMINESCENT** ELEMENT.

L8 ANSWER 21 OF 97 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
AN 2002-322154 [36] WPIX  
TI Exposure system used for image forming device e.g. printer, digital copier, has image carrier on which image is formed using light irradiated from several **light emitting** diodes.  
PA (CANO) CANON KK  
PI JP 2002019182 A 20020123 (200236)\* 18p  
ADT JP 2002019182 A JP 2000-203778 20000705  
PRAI JP 2000-203778 20000705  
TI Exposure system used for image forming device e.g. printer, digital copier, has image carrier on which image is formed using light irradiated from several **light emitting** diodes.  
AB JP2002019182 A UPAB: 20020610  
NOVELTY - Several **light emitting** diodes are arranged on a transparent insulated base material. The **light emitted** by the diodes, passes through a rod-lens array (3), such that an image is formed on an image carrier (2). A micro-lens array comprising several micro **lenses**, is formed on the **transparent** insulated base **material**.  
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for image forming device.  
USE - For image forming device (claimed) e.g. printer, digital copier and facsimile.  
ADVANTAGE - Light quantity is increased. Image formation is performed at high speed.  
DESCRIPTION OF DRAWING(S) - The figure shows the exposure system. (Drawing includes non-English language text). Image carrier 2  
Rod-lens array 3  
Dwg.4/9

L8 ANSWER 35 OF 97 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1999-574920 [49] WPIX

TI Planar lens for projection type display device - has Fresnel lens formed on light incidence surface of transparent resin layer having specific refractive index.

PA (NITL) NITTO DENKO CORP

PI JP 11248908 A 19990917 (199949)\* 6p

ADT JP 11248908 A JP 1998-51674 19980304

PRAI JP 1998-51674 19980304

AB JP 11248908 A UPAB: 19991210

NOVELTY - Several transparent beads (12) are fixed using an adhesive agent layer (13) and arranged in a single layer or row on the light incidence surface of base material (11). A Fresnel lens (16a) is formed on the light incidence surface of a transparent resin layer (16) having refractive index smaller than the refractive index of the transparent beads. DETAILED DESCRIPTION - The adhesive agent layer is formed on the light incidence surface of the transparent base material (11). The transparent resin layer is formed over the beads. The difference between the refractive index of the transparent bead and the refractive index of the transparent resin layer extends from 0.1-0.9. The refractive index of the transparent bead is at least 1.4 and the refractive index of the transparent resin layer is set to 1.3 or more.

USE - For projecting display device, liquid crystal display device, plasma display device and **electroluminescence** display device.

ADVANTAGE - Since the Fresnel lens is formed on the light incidence surface of the transparent resin layer, the planar lens with raised contrast is obtained. DESCRIPTION OF DRAWING(S) - The figure shows the sectional view of the planar **lens**. (11) **Transparent** base **material**; (12) **Transparent** bead; (13) Adhesive agent layer; (16) Transparent resin layer; (16a) Fresnel lens. Dwg.1/6

L8 ANSWER 43 OF 97 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1998-398237 [34] WPIX

TI Encapsulant package material for a **light emitting** diode chip - comprises of a transparent host material, with high refractive index nanoparticles that are smaller than the wavelength of the emitted light.

IN LESTER, S D; MILLER, J N; ROITMAN, D B

PA (HEWP) HEWLETT-PACKARD CO

PI US 5777433 A 19980707 (199834)\* 10p

ADT US 5777433 A US 1996-678276 19960711

PRAI US 1996-678276 19960711

AB US 5777433 A UPAB: 19980826

A **light emitting** device has a **light emitting** diode (**LED**) chip (42) encapsulated by a high refractive index package material (41) that is transparent to the light. The package material has a transparent host material with a refractive index lower than that of the **LED** chip, and nanoparticles of a material with a higher refractive index than the host.

The particles are smaller than the wavelength of the light, and are present in the host at a density sufficient to increase its refractive index without decreasing the transparency.

Preferably the host material is an epoxy, a plastic or a glass.

ADVANTAGE - The efficiency of the **light emitting** device is improved since the critical angle of the device is increased and the **fresnel** loss is reduced. The package **material** is **transparent** to the emitted light, and is relatively easy to process.

Dwg.3/5

L8 ANSWER 67 OF 97 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1994-001301 [01] WPIX

TI Solid state image sensor with several light shielding layers - uses light shielding film of metallic evaporation film formed on transfer gate electrode.

IN OKAMOTO, H; SANO, Y

PA (MATE) MATSUSHITA ELECTRONICS CORP

PI US 5514888 A 19960507 (199624) 19p

PRAI JP 1992-130458 19920522

AB EP 576144 A UPAB: 19940217

The solid state image sensor has a light shielding layer formed outside a **photodiode** on a semiconductor substrate. A smooth layer is formed on the light shielding layer. Two or more light shielding layers are formed on the smooth layer. A transparent film is formed between the light shielding layers.

Sectional widths of the light shielding layers are made sequentially narrower further out from the substrate. A micro **lens** is formed on an uppermost **transparent film** according to the position of the **photodiode**.

ADVANTAGE - High quality images. Shields flare light from oblique and internal reflection light. Eliminates spurious signals. Dwg.1/25

ABEQ US 5514888 A UPAB: 19960618

A solid state image sensor comprising: a light-shielding layer formed outside a **photodiode** of a solid state image sensing device on a semiconductor substrate which carries the solid state image sensing device; a smooth layer formed on the light-shielding layer; and two or more light-shielding layers formed on the smooth layer to lie, with one above the other, along an optical path for incoming light on the **photodiode** but lie outside the optical path.

Dwg.0/25



L8 ANSWER 83 OF 97 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
 AN 1986-224768 [34] WPIX  
 TI Electronic display with lens matrix e.g. for retail store - has protective material covering each **LED** so as nearly all light produced is directed via associated pipe and out through convex lens.  
 IN LAI, J C S; LATZ, W J; MANDLER, T J  
 PA (ADAP-N) ADAPTIVE MICRO SYST  
 PI US 4603496 A 19860805 (198634)\* 5p  
 PRAI US 1985-698021 19850204  
 TI Electronic display with lens matrix e.g. for retail store - has protective material covering each **LED** so as nearly all light produced is directed via associated pipe and out through convex lens.  
 AB US 4603496 A UPAB: 19930922  
 The electronic display includes a matrix of **LEDs** mounted to a circuit board. A reflector matrix provides light pipes that align with the matrix **light emitting** devices and direct the light produced by the **LEDs** away from the circuit board. A lens matrix is disposed over the reflector to provide convex lenses that align with the light pipes to redirect emanating light.  
 The electronic display further includes a potting compound which is disposed in each light pipe and which fills the space between the **LED** and the convex **lens**. A **transparent** protective **material** covers each **LED**. The rear surface of the potting compound is in contact with and defined by the protective material. The potting compound contains a light diffusing material.  
 ADVANTAGE - Provides greater illumination. 3/3  
 TT TT: ELECTRONIC DISPLAY LENS MATRIX RETAIL STORAGE PROTECT MATERIAL COVER **LED** SO LIGHT PRODUCE DIRECT ASSOCIATE PIPE THROUGH CONVEX LENS.